

CLAIMS

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5 1. Device for cutting materials, preferably wood, to any width, with at least two circular saw blades (2a, 2b, 2c, 2d, 2e, 2f, 2g) which by means of a centrally aligned drive shaft (1, 20) execute a rotary cutting movement and wherein to vary the cutting width at least one circular saw blade (2a, 2b, 2c, 2d, 2e, 2f, 2g) is mounted displaceable axially on the drive shaft wherein disc like support bodies (3a, 3b, 3c, 3d, 3e, 3f, 3g) are provided axially displaceable on the drive shaft whereby at least one circular saw blade (2a, 2b, 2c, 2d, 2e, 2f, 2g) is to be mounted fixed on each support body whereby the axial displacement of the circular saw blades (2a, 2b, 2c, 2d, 2e, 2f, 2g) is carried out by means of rods (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l) running parallel to the axis of the drive shaft (1, 20) and engaging through the support bodies (3a, 3b, 3c, 3d, 3e, 3f, 3g) wherein the rods are moved during the circular cutting movement of the circular saw blades (2a, 2b, 2c, 2d, 2e, 2f, 2g) on a circular path about the axis of the drive shaft (1, 20) **characterised in that** the rods (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l) are formed as guide spindles (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l) fixed axially on the drive shaft (1, 20) and each of which is screwed into an associated nut of a single support body (3a, 3b, 3c, 3d, 3e, 3f, 3g) associated with these guide spindles, and that all the support bodies (3a, 3b, 3c, 3d, 3e, 3f, 3g) can be fixed on the drive shaft (1, 20) by a common hydraulic clamping strip (21).

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2. Cutting device according to claim 1 **characterised in that** two diametrically opposite guide spindles (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l) mounted at equal distance from the axis of the drive shaft (1, 20) each displace one support body (3, 3a, 3b, 3c, 3d, 3f) axially on the drive shaft (1, 20).

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10 3. Cutting device according to claims 1 ^{or} ~~and~~ 2 **characterised in that** one transport movement of each two associated guide spindles (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l) serving for the axial displacement of the support body (3a, 3b, 3c, 3d, 3e, 3f) can be synchronised by means of a gear.

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20 4. Cutting device according to claim 3 **characterised in that** the gearing is formed as a belt gearing.

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25 5. Cutting device according to ^{claim 3} ~~one of claims 3 or 4~~ **characterised in that** the or each gearing is or are mounted inside a drive housing (8).

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30 6. Cutting device according to ^{claim 1} ~~one of the preceding claims characterised in that~~ to set the cutting widths (18a, 18b, 18c, 18d, 18e, 18f) stud attachments (9a, 9b) are provided by means of which the relevant guide spindles (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l) are to be driven to produce their transport movement.

7. Cutting device according to claim 6 **characterised in that** the stud attachments (9a, 9b) are shaped from the extended ends of the guide spindles (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l).

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8. Cutting device according to one of claims 6 or 7 **characterised in that** the transport movement is to be applied to the relevant stud attachment (9a, 9b) manually or motorized by means of a suitable tool .

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9. Cutting device according to ^{Claim 1} ~~one of the preceding claims~~ **characterised in that** a complete set of support bodies (3a, 3b, 3c, 3d, 3e, 3f, 3g) inclusive of the circular saw blades (2a, 2b, 2c, 2d, 2e, 2f, 2g) mounted thereon together with the associated guide spindles (7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7i, 7j, 7k, 7l) and the drive housing (8) can be assembled as a structural unit and during a tool change can be pushed and fixed on the drive shaft (1, 20) like a saw box.

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10. Cutting device according to ^{Claim 1} ~~one of the preceding claims~~ **characterised in that** the circular saw blades (2a, 2b, 2c, 2d, 2e, 2f, 2g) are to be mounted fixed on disc-like support bodies (3a, 3b, 3c, 3d, 3e, 3f, 3g) or fixed on known blade socket rings and are mounted with these axially displaceable on the drive shaft (1, 20).

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~~11. Cutting device according to at least one of the~~

New description
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Canl. Sug. Bl.
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claim 1
~~preceding claims characterised in that the clamping
elements (21) correspond in shape and action to close
tolerance screws.~~

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12. Cutting device according to ^{Claim 1} ~~at least one of the~~
~~preceding claims~~ characterised in that two clamping
elements (21) are provided diametrically opposite one
5 another on the drive shaft (1, 20).

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13. Cutting device according to ^{Claim 1} ~~at least one of the~~
~~preceding claims~~ characterised in that lift restricting
10 elements (22) more particularly lifting screws are
provided for restricting the radial displacement of the
clamping elements (21).

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14. Cutting device according to ^{Claim 1} ~~at least one of the~~
~~preceding claims~~ characterised in that a manually or
motor-driven displaceable piston (26) is provided for
applying the hydraulic force action.

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15. Cutting device according to ^{Claim 1} ~~at least one of the~~
~~preceding claims~~ 1 to 13 characterised in that a hydraulic
appliance is provided inside or outside the machine for
applying the hydraulic force action.

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16. Saw blade clamping device according to ^{Claim 1} ~~at least one~~
~~of the preceding claims~~ characterised in that a manometer
(30) is provided for monitoring the hydraulic force
30 action.